## What is claimed is:

- 1. A method to generate a population of inhibitor sequences ready for cloning comprising:
- a.) extending a population of random oligonucleotide RNAi progenitors comprising a fixed primer sequence;
  - a random oligonucleotide sequence; and
  - a fixed stem-loop structure;

via a polymerase extension reaction to produce a full hairpin random oligonucleotide RNAi progenitor;

- b. denaturing said full hairpin random oligonucleotide RNAi progenitor to produce a denatured full hairpin random oligonucleotide RNAi progenitor;
  - c. extending said denatured full hairpin random oligonucleotide RNAi progenitor via a polymerase extension reaction to create a double stranded linear product and
  - d. removing primer sequences from said double stranded product.

15

5

- 2. The method of claim 1 further comprising inserting said product into an expression vector.
- 3. The method of claim 2 further comprising introducing said expression vector into a cell.
  - 4. The method of claim 3 wherein said cell is assessed for a phenotype.
  - 5. The method of claim 4 wherein said phenotype is a loss of function phenotype.

25

- 6. The method of claim 4 wherein the said phenotype is a partial loss of function phenotype.
- 7. The method of claim 4 wherein the said phenotype is due to the loss of function of a receptor gene.
  - 8. The method of claim 4 wherein the said phenotype is due to the partial loss of function of a receptor gene.

•

- 9. The method of claim 1 wherein the population of sequences ready for cloning comprises a denatured random oligonucleotide sequence of 15 to 50 bases in length.
- 5 10. The method of claim 1 wherein the population of sequences ready for cloning comprises a denatured random oligonucleotide sequence of 20 to 30 bases in length.
  - 11. The method of claim 1 wherein the population of sequences ready for cloning comprises a denatured random oligonucleotide sequence of 21 to 23 bases in length.

10